Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. - 51. (Canceled).

52. (Canceled)

53. (Currently Amended) The system of claim ~~52~~ 99 wherein **the array of heat-producing units cooperates with the shell and divider wall in use to define a first plenum, the first plenum having a first inlet defined by the divider wall for receiving the flow of cooling gas and having a first outlet defined by a plurality of openings through the array whereby the first plenum communicates with the openings in use to exhaust substantially all of the flow of cooling gas through the openings and hence through the array, wherein the divider wall is configured such that the first inlet at least partially vertically overlaps with the first plenum to allow the first inlet to admit the gas to the first plenum in a substantially horizontal direction, and** the divider wall is configured such that the first inlet will admit the gas over a substantial vertical length of the cabinet.

54. (Currently Amended) The system of claim ~~52~~ 99 wherein **the array of heat-producing units cooperates with the shell and divider wall in use to define a first plenum, the first plenum having a first inlet defined by the divider wall for receiving the flow of cooling gas and having a first outlet defined by a plurality of openings through the array whereby the first plenum communicates with the openings in use to exhaust substantially all of the flow of cooling gas through the openings and hence through the array, wherein the divider wall is configured such that the first inlet at least partially vertically overlaps with the first plenum to allow the first inlet to admit the gas to the first**

plenum in a substantially horizontal direction, and the divider wall is configured such that the first inlet will admit the gas substantially uniformly over a vertical length of the first inlet.

55. (Previously presented) The system of claim 54 wherein the first inlet is at least one substantially vertical slot beside the first plenum.

56. (Previously presented) The system of claim 54 wherein the first inlet extends substantially a full vertical extent of at least one of the array and the first plenum.

57. (Currently Amended) The system of claim ~~52~~ **99** wherein **the array of heat-producing units cooperates with the shell and divider wall in use to define a first plenum, the first plenum having a first inlet defined by the divider wall for receiving the flow of cooling gas and having a first outlet defined by a plurality of openings through the array whereby the first plenum communicates with the openings in use to exhaust substantially all of the flow of cooling gas through the openings and hence through the array, wherein the divider wall is configured such that the first inlet at least partially vertically overlaps with the first plenum to allow the first inlet to admit the gas to the first plenum in a substantially horizontal direction, and** a second plenum is defined between the ~~chamber~~ shell and the array for receiving the flow of gas that has passed through the array, the second plenum having a second inlet defined by a second plurality of openings through the array, and a second outlet defined by the divider wall such that the gas is directed horizontally from the equipment chamber.

58. (Currently Amended) The system of claim ~~52~~ **99 further comprising a cooling mechanism including an impeller array comprising a plurality of vertically arranged impellers, wherein the impellers are disposed in the cabinet vertically overlapping with the first inlet and configured to horizontally impel a substantially uniform curtain of gas to the first inlet and impel the gas substantially horizontally during an entire circulation of the gas through the equipment chamber and the heat exchanger**

chamber, and wherein the cooling mechanism is configured to cool the gas before the gas re-circulates through the first inlet.

59. (Previously presented) The system of claim 58 wherein the cabinet shell and divider wall are configured to direct the gas to the mechanism for cooling and impelling the gas.

60. (Previously presented) The system of claim 59 wherein the mechanism includes at least one heat exchanger.

61. (Previously presented) The system of claim 60 wherein the heat exchanger is upstream of the impeller array.

62. (Previously presented) The system of claim 60 wherein the heat exchanger is downstream of the impeller array.

63. (Canceled)

64. (Previously presented) The system of claim 60 wherein each impeller is associated with a non-return valve that closes in the event of failure of that impeller.

65. (Previously presented) The system of claim 60 wherein at least a first heat exchanger of the at least one heat exchanger is a module replaceable during use of the array of heat-producing units and system.

66. (Previously presented) The system of claim 65 wherein the first heat exchanger is mounted to the cabinet on runners configured to support the first heat exchanger when the first heat exchanger is withdrawn from the cabinet.

67. (Currently Amended) The system of claim 60 wherein at least a second heat exchanger of the at least one heat **exchanger** is coupled to coolant supply ducts by dry-break connectors.

68. (Previously presented) The system of claim 58 wherein the mechanism is disposed in a mechanism chamber defined by the cabinet shell and the divider wall, and the equipment chamber and the mechanism are configured to circulate the gas between the mechanism chamber and the equipment chamber.

69. (Canceled)

70. (Previously presented) The system of claim 68 wherein the flow of the gas through the equipment chamber is substantially parallel to and opposed to the flow of the gas through the mechanism chamber.

71. (Previously presented) The system of claim 68 wherein the cabinet includes a mechanism-access door configured to provide access to the mechanism chamber without providing access to the equipment chamber.

72. (Currently Amended) The system of claim 71 ~~wherein the cabinet further comprises an equipment-access door,~~ wherein the mechanism-access door and ~~equipment-access doors~~ **the first door** have independent locks and are each capable of permitting access to only one of the equipment and the mechanism chambers, respectively.

73. (Previously presented) The system of claim 72 wherein the doors provide substantially vertically upright walls of the cabinet.

74. (Currently Amended) The system of claim ~~52~~ 99 further including heat transfer means disposed in the cabinet for carrying heat away from the cabinet.

75. (Currently Amended) The system of claim ~~52~~ 99 ~~further comprising a door~~ **wherein the controller is further** configured to **effect the locked state of the first door to** provide selective access to the heat-producing units based on ~~at least one of (1) an environmental compatibility inside and outside the cabinet, and (2)~~ whether an outer enclosure around the cabinet is closed.

76. (Currently Amended) The system of claim ~~52~~ 99 further comprising an outer enclosure disposed around a substantial portion of the cabinet.

77. (Previously presented) The system of claim 76 further comprising an air conditioner disposed and configured to control at least one of temperature and humidity of air between the cabinet and the outer enclosure.

78. (Previously presented) The system of claim 76 wherein the outer enclosure includes external panels displaced from walls of the outer enclosure.

79. - 96. (Canceled).

97. (Currently Amended) The system of claim ~~52~~ 99 **further comprising a cooling mechanism including an impeller array comprising a plurality of vertically arranged impellers, wherein the impellers are disposed in the cabinet vertically overlapping with the first inlet and horizontally impel a substantially uniform curtain of gas to the first inlet and impel the gas substantially horizontally during an entire circulation of the gas through the equipment chamber and the heat exchanger chamber, and further** wherein the impeller array is configured such that any of the impellers can be replaced while the other impellers continue to operate.

98. (Previously presented) The system of claim 97 wherein each of the impellers is removably connected to the cabinet with quick-release fittings.

99. (Previously presented) A data center system including:

a heat exchanger;

a substantially sealed, substantially airtight cabinet sized for housing a vertical array of heat-producing units, the cabinet having an exterior shell and the system including an interior divider wall disposed inside the cabinet, the shell and divider wall providing a heat exchanger chamber in which the heat exchanger is disposed, the shell and divider wall providing

an equipment chamber separate from the heat exchanger chamber and adapted to support the array of heat-producing units, the divider wall being configured to pass a flow of cooling gas between the heat exchanger chamber and the equipment chamber in a substantially horizontal direction;

wherein the cabinet comprises a door mechanism, including a first door and a controller coupled to the first door, the controller configured to effect a locked state of the first door to inhibit access to the equipment chamber in response to a difference between an internal environment inside the cabinet and an external environment outside the cabinet being likely to result in dew formation inside the cabinet if the first door is opened.

100. (Previously presented) The system of claim 99 wherein the cabinet comprises an equipment portion and a heat exchanger portion, the equipment portion providing the equipment chamber and the heat exchanger portion providing the heat exchanger chamber, the equipment portion being removably attached to the heat exchanger portion.

101. (Previously presented) The system of claim 99 wherein the cabinet comprises an equipment portion and a heat exchanger portion, the equipment portion comprises the first door and further comprises second door disposed on an opposite side of the equipment portion from the first door, the heat exchanger portion comprising third and fourth doors configured to provide access to the heat exchanger chamber and disposed on opposite sides of the heat exchanger portion from each other.